

One New Species and One New Subspecies of *Cissus* (Vitaceae) from Colombia

Julio Antonio Lombardi

Departamento de Taxonomia e Morfologia Vegetais, Instituto de Biologia, Universidade Estadual de Campinas, Campinas, SP, Brazil. Current address: Departamento de Botânica, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, Av. Antônio Carlos 6627, 31270-110, Belo Horizonte, MG, Brazil

ABSTRACT. *Cissus colombiensis* and *C. verticillata* subsp. *colombiana*, new taxa of Vitaceae, are described from Colombia. In addition to descriptions and illustrations, comments on their probable relationships and distributions are presented.

Cissus L. has approximately 55 species in South America and is the largest genus in the Vitaceae. Many of the species described by Baker (1871; placed in the genus *Vitis*), and Planchon (1887) were considered synonyms in a recent taxonomic survey by the author (Lombardi, 1995), while one new species and one new subspecies were found in Colombia: *Cissus colombiensis* and *C. verticillata* subsp. *colombiana*.

Cissus colombiensis Lombardi, sp. nov. TYPE: Colombia. Antióquia: Frontino, Corregimiento Nutibara, Región Murí, camino hacia La Blanquita, 1440 m, 10 July 1986, *Acevedo et al.* 1204 (holotype, NY). Figure 1.

Frutex scandens, foliis ternatis, hispidis, *C. ulmifoliae* (Baker) Planchon similis, sed inflorescentia haud umbelliformi, calyce urceolato, fructibus 1.5 cm longis, 1 cm latis, seminibus raphe rugosa, differt.

Liana, stem hispid, terete. Trichomes chiefly multicellular and not secretory, mixed with sparse not secretory and unicellular trichomes, and secretory trichomes. Tendrils with several bifurcate branches, hispid, adhesive discs not seen; scales ca. 0.15 cm long, triangular, puberulent, ciliate. Stipules ca. 0.4 cm long, 0.3 cm wide, subfalcate, fleshy, glabrous, the base gibbous, caducous. Petioles 1.4–8.5 cm long, terete, hispid to villous. Leaf blades ternately compound, much reduced in reproductive shoots; central petiolules 0.35–2.7 cm long, lateral petiolules 0–1.8 cm long, hispid to villous; blades of central leaflets subelliptic, elliptic to obovate, 4.3–18.8 cm long, 1.3–9.7 cm wide, blades of lateral leaflets subovate, subelliptic to elliptic, 3.6–14.35 cm long, 1.15–7.3 cm wide, central and lateral leaflets herbaceous, sparsely hispid

to hispid chiefly along the prominent veins on the abaxial side, sparsely puberulent along the veins on the adaxial side, the base subreniform, oblique, cuneate to rounded, the apex acuminate to acute, the margin denticulate. Compound cymes elongated, the peduncle 1.8–3.5 cm long, puberulent; the bracts triangular, 0.1–0.2 cm long, the base gibbous, puberulent, ciliate. Flowers greenish; pedicels 0.25–0.3 cm long, puberulent; calyx truncate, 0.1–0.15 cm long, 0.2–0.3 cm diam., urceolate, fleshy, glabrous; corolla tetramerous, 0.15–0.25 cm long, 0.15–0.3 cm diam., petals coherent, the margin elevated in the junction, caducous, papillose; stamens 4, connective deltate, granular, drying slightly dark brown, anther dehiscence extrorse; disc apex concave with central depression; the style conic, the stigma slightly clavate. Fruit purple, subspherical, with sparse lenticels, 1.5 cm long, 1 cm wide. Seed 1, subobconic, 1.1 cm long, 0.9 cm wide, the hilum acute, the raphe prominent and crispate, the sides rugose.

This species is named after Colombia, the country with the most complete collections. It is distinctive among the South American trifoliate species by its large leaves and flowers, the hispid leaves prominently nerved, the elongate inflorescence, the urceolate calyx, and the peculiar seeds.

This species is similar to *Cissus ulmifolia* (Baker) Planchon, but differs in the urceolate calyx, the elongate inflorescence (umbelliform in *Cissus ulmifolia*), and in the seeds with a crispate raphe and rugose sides (raphe not crispate and sides deeply sulcate in *Cissus ulmifolia*).

The apparent disjunct distribution of *Cissus colombiensis* probably can be explained by a lack of collections of this species, a large liana in the rainforests of the Amazon basin and adjacent areas.

Paratypes. COLOMBIA. **Boyacá:** upper Chapon, 100 mi. NW de Bogotá, 6500 ft., high forest fronts, 8 Aug. 1932, *Lawrance* 397 (A—2 sheets, F, S). BRAZIL. **Amazonas:** Novo Japurá, rio Japurá, margem direita, mata de várzea, 9 Nov. 1982, *Amaral et al.* 379 (NY); São Paulo

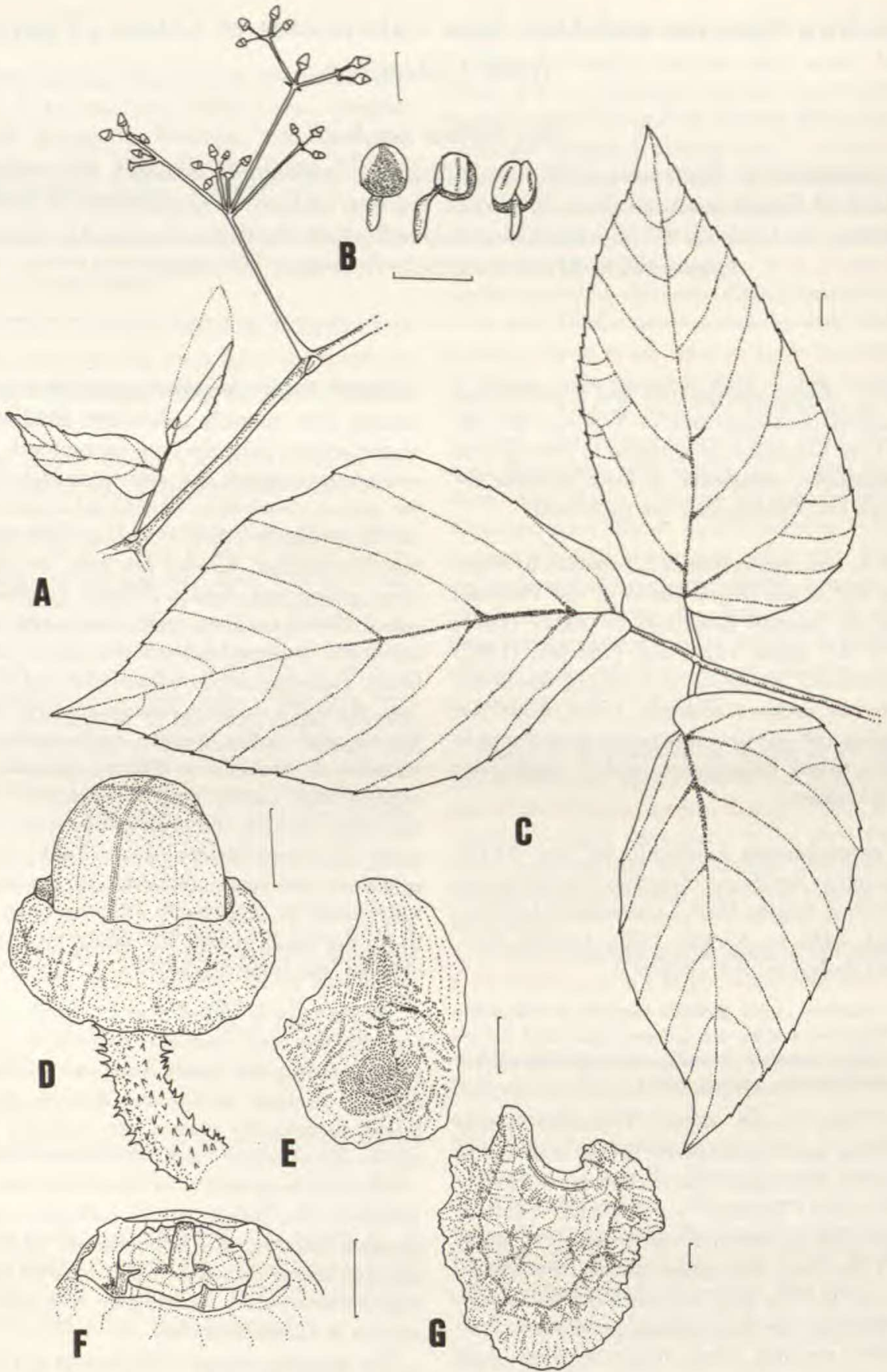


Figure 1. *Cissus colombiensis* Lombardi. —A. Reproductive branch. —B. Stamens, ventral, lateral, and dorsal views. —C. Vegetative leaf. —D. Flower bud. —E. Stipule. —F. Nectariferous disc and pistil. —G. Seed. A–F from Acevedo et al. 1204; G from Lawrance 397. Scales A, C = 1 cm, B, D–G = 1 mm. Drawn by the author.

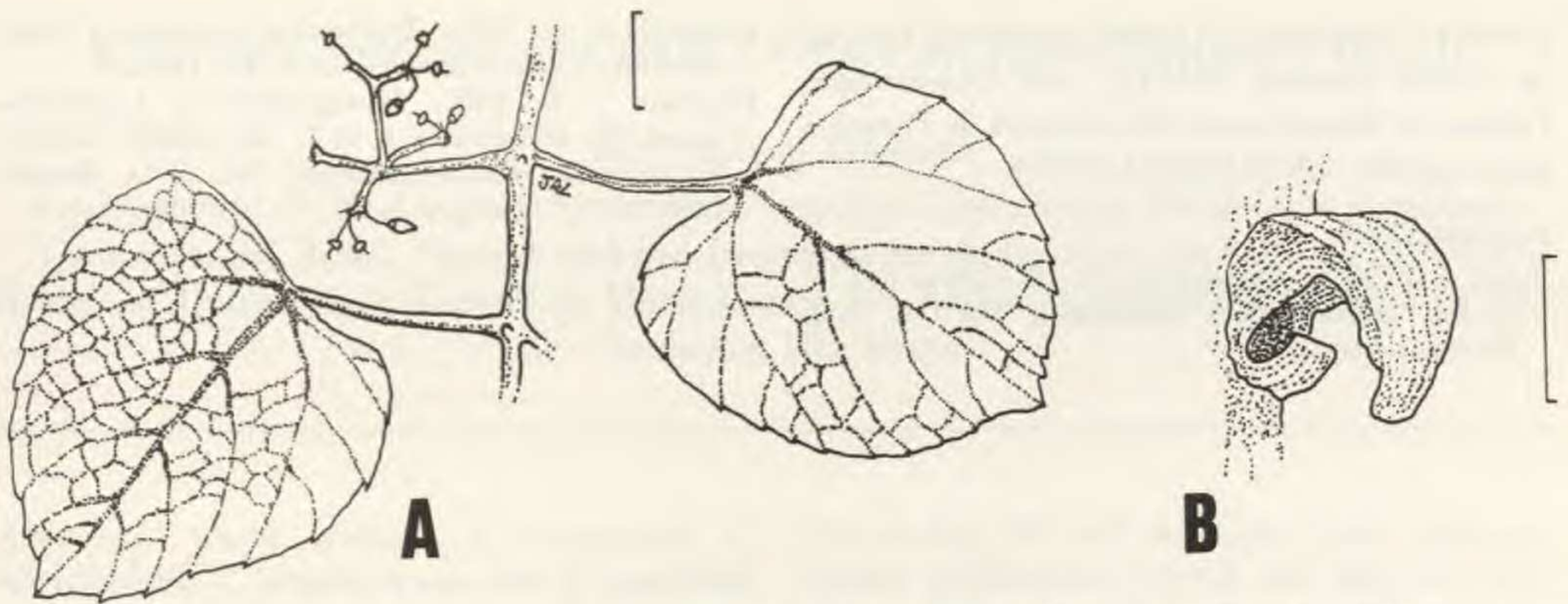


Figure 2. *Cissus verticillata* subsp. *colombiana* Lombardi. —A. Reproductive branch. —B. Stipule. A, B from Haught 4182. Scales A = 1 cm; B = 1 mm. Drawn by the author.

de Olivença, várzea, 21 May 1945, *Fróes* 20945 (F). BOLIVIA. **La Paz:** Nor Yungas, Serrania de Bella Vista, 17.6 km N of the bridge to Carrasco, 1600 m, 11 June 1985, *Solomon* 13980 (M, U), *Solomon* 13983 (U).

***Cissus verticillata* subsp. *colombiana* Lombardi, subsp. nov.** TYPE: Colombia. Magdalena: dry hills 12 km W of Codazzi, ca. 100 m, 26 May 1944, *Haught* 4182 (holotype, F; isotype, S). Figure 2.

C. verticillatae (L.) Nicolson & Jarvis subsp. *verticillatae* similis, sed folia in ramis vegetativis suborbicularia, in ramis fertilibus depresso-ovata, transverso-elliptica vel deltoidea, basi cuneata vel reniformia, stipularum margine flectere ad basem et apicem, et in inflorescentia 1.4–2.0 cm longo, 1.45–2.7 cm lato longo differt.

Stem glabrous. Tendrils bifurcate. Stipules ovate to spatulate, glabrous, the base rounded with reflected margin, the apex reflected. Leaves alternate; petioles 0.8–3 cm long, glabrous; blade simple and entire, in the vegetative shoots subcircular, in the reproductive shoots depressed ovate, transversely elliptic to deltate, 2–6.2 cm long, 1.9–7.1 cm wide. Inflorescence glabrous, pauciflorous, 1.4–2.0 cm long, 1.45–2.7 cm wide; the peduncle 0.55–1.85 cm long. Flowers greenish to sometimes reddish; pedicels 0.1–0.3 cm long; calyx 0.1 cm long, 0.1–0.15 cm diam.; corolla 0.1–0.2 cm long, 0.1–0.15 cm diam., slightly granulose. Fruit spherical, 0.4 cm diam.

Cissus verticillata is a very variable species, with a wide range of variation in indumentum, leaf shape, and rarely in flower color (pink to red in some collections); these phenotypic forms have been given several specific or infraspecific epithets (for a South American account see Lombardi, 1995).

Subspecies *colombiana* has leaves that are subcircular on vegetative shoots, and depressed ovate, transversely elliptic to deltate on reproductive shoots (in subspecies *verticillata* they are ovate, triangular, lanceolate, elliptic, obovate, wide-ovate to subpanduriform on vegetative shoots, and ovate, oblong to triangular on reproductive shoots); stipules with margin and apex reflected (only apex reflected in subspecies *verticillata*); and smaller and pauciflorous inflorescences (3.5–7.4 cm long, 3.0–5.9 cm wide, and multiflorous in subspecies *verticillata*).

The peculiar leaf shape, and the restricted geographic occurrence of this variation, not encountered in the rest of the distribution area of *Cissus verticillata* (south Florida to North Argentina), justify the recognition of subspecies *colombiana* as a distinct entity.

Paratypes. COLOMBIA. **Atlántico:** Magdalena, Santa Marta, 100 ft., Aug. 1898–1901, *H. H. Smith* 570 (BM); Santa Marta, near seacoast, Sep. 1898–1901, *H. H. Smith* 1319 (BR); Santa Marta, 500 ft., July 1898–1901, *H. H. Smith* 2724 (BM, BR, E, F, L, S, U). VENEZUELA. **Aragua:** Maracay, Facultad de Agronomía, cerro con bosque caducifolio, detras del Instituto de Botánica Agrícola, 29 Aug. 1974, *Guevara* 1753 (F); Maracay, 1934, *Vogl* 1294 (M). **Carabobo:** environs de El Palito, 50 m, 24 Sep. 1920, *Pittier* 9084 (Z). **Distrito Federal:** bosque seco en las faldas costañeras frente el mar, entre Punta Picure y Oricao, 100–200 m, 1 July 1966, *Steyermark & Aristeguieta* 115 (F). **Falcón:** Dto. Silva, bosque tropofilo por encima de la línea de peñascos calcáreos, al S de la Punta Faustino, al SE de Chichiriviche, 15–25 m, 29 Aug. 1974, *Steyermark & Manara* 110404 (U). **Nueva Esparta:** Isla Margarita, 0–850 m, Aug. 1955, *Bernardi* 2391 (NY); Island of Margarita, 1 Aug. 1901, *Miller* 244 (ARIZ, F).

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